

t15\_waybel12  
(TML64fBb47iuFpejYFUan5746UUepV8YPrk)

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Let  $v3\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v4\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v5\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v1\_yellow\_0 : \iota \Rightarrow o$  be given. Let  $v1\_lattice3 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_yellow\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_yellow\_0 : \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v5\_orders\_2 X0) \wedge ((v1\_yellow\_0 X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (r1\_orders\_2 X0 (k3\_yellow\_0 X0) X1)) \quad (1)$$

Assume the following.

$$\forall X0.((v3\_orders\_2 X0) \wedge ((v5\_orders\_2 X0) \wedge ((v1\_lattice3 X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((r1\_lattice3 X0 X1 X2) \Rightarrow (k2\_yellow\_4 X0 (k6\_domain\_1 (u1\_struct\_0 X0) X2) X1 = X1)))) \quad (2)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (m1\_subset\_1 (k3\_yellow\_0 X0) (u1\_struct\_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((r1\_lattice3 X0 X1 X2) \Leftrightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow ((X3 \in X1) \Rightarrow (r1\_orders\_2 X0 X2 X3)))))) \quad (4)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v1\_lattice3 X0) \Rightarrow (\neg v2\_struct\_0 X0)) \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_yellow\_0 X0) \wedge ((v1\_lattice3 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & (k2\_yellow\_4 X0 (k6\_domain\_1 (u1\_struct\_0 X0) (k3\_yellow\_0 X0)) \\ & X1 = X1)) \end{aligned}$$